DIRECTIVE NO.540-PG-8072.1.1BAPPROVED BY Signature:Original signed byEFFECTIVE DATE:07/29/2004NAME:Stanley Y. ChanEXPIRATION DATE:07/29/2009TITLE:RECERT Manager

**Responsible Office:** 540/RECERT

**Title:** Certification and Recertification of Lifting Devices and Equipment (Recertification Program)

### **PREFACE**

### P.1 PURPOSE

This Procedure describes the process and process controls for all activities associated with the GSFC Recertification Program (RECERT) for Lifting Devices and Equipment (LDE).

### P.2 APPLICABILITY

This Procedure is applicable to all RECERT activities at Greenbelt, MD and at the Wallops Flight Facility, VA. The RECERT Manager is responsible for Certification and Recertification of LDE, LDE Operators, and Critical Lift Coordinators. The RECERT Manager is responsible for the implementation and management of the GSFC Recertification Program.

- P2.1 This Procedure covers LDE as defined in GMI 1710.6.
- P2.2 This Procedure covers the certification of all personnel who operate LDE and coordinate critical lifts.

### P.3 AUTHORITY

P3.1 GMI 1710.6, Certification and Recertification of Lifting Devices and Equipment and Critical Lift Requirements

### P.4 REFERENCES

- P4.1 GPG 1440.7, Control of Quality Records
- P4.2 GPG 5340.2, Control of Nonconforming Product
- P4.3 GPG 8072.1, Process Control
- P4.4 Physical Examination Requirements for Certifying Operators of Lifting Devices and Equipment
- (LDE), Mobile Aerial Platform (MAP), and Powered Industrial Truck (PIT), dated December 03, 2003.
- P4.5 Policy for Critical Lift Coordinator (CLC) Certification.
- P4.6 NASA-STD-8719.9, Standard for Lifting Devices and Equipment
- P4.7 Code of Federal Regulations, Title 29, Part 1910
- P4.8 American Society for Nondestructive Testing (ASNT), Recommended Practice No. SNT-TC-1A, Personnel Qualification and Certification in Nondestructive Testing

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## P.5 CANCELLATION

540-PG-8072.1.1, Rev A, Certification and Recertification of Lifting Devices and Equipment and Ground-Based Pressure Vessels and Pressurized Systems (Recertification Program)

## P.6 SAFETY

None

## P.7 TRAINING

None

## P.8 RECORDS

Record Title	Record Custodian	Retention
Test & Inspection Reports for LDE	RECERT Manager for Greenbelt, Deputy RECERT Manager at WFF	PERMANENT – pending approval of record schedule.
LDE Operator Certification and Recertification Records.	RECERT Manager for Greenbelt, Deputy RECERT Manager at WFF	NRRS 3/33G  Destroy 5 years after separation of employee or when no longer needed.
Critical Lift Coordinator Certification and Recertification Records.	RECERT Manager	Five years

## P.9 METRICS

The RECERT Manager shall document the number of deficiencies, incidents, or mishaps related to LDE.

### P.10 DEFINITIONS

Refer to GMI 1710.6 for definitions related to LDE.

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### **PROCEDURES**

- 1. CERTIFICATION AND RECERTIFICATION OF LDE
- 1.1 Lifting Device Certification

All new or modified LD's are required to be certified prior to use in accordance with the requirements of GMI 1710.6.

- 1.1.1 Prior to initial certification, each new or modified LD is reviewed to determine the inspection requirements based on a) Criticality, b) Type of inspection, and c) Frequency of Inspection. Criticality is determined by the Owner/User in terms of their operations per guideline definitions provided in NASA-STD-8719.9. The type of inspection is set by Federal Regulations (OSHA 29 CFR 1910), and prescribes specific points to be inspected based on the frequency of inspection. Frequency of inspection is determined by the RECERT Manager based upon OSHA Regulations, i.e., Frequent (monthly) and Periodic (annual).
- 1.1.2 LD inspection procedures are developed or modified with the applicable regulations based on the specific type of lifting devices, e.g. overhead pendant operated crane, radio-controlled cranes, manual chain hoist, etc.
- 1.1.3 New and/or revised inspection procedures are reviewed, approved, and signed by the RECERT Manager.
- 1.1.4 LD inspection procedures are maintained by the RECERT Manager in the RECERT Master Files.
- 1.1.5 Applicable LD data and inspection requirements are input into the RECERT Configuration Status Verification System consisting of the LDE Inventory Database and the LDE Inspection Schedule Database.
- 1.2 Lifting Device Recertification

All LD's are recertified in accordance with the requirements of GMI 1710.6. At a minimum of once each month, an inspection schedule is generated from the LD database for those LD requiring test and inspection for that month. The schedule consists of a list of LD by Identification Number, location, and the type of inspection required: Frequent or Periodic. Inspections are performed per test and inspection procedures. If required by a procedure, preventative maintenance (adding gearbox oil, greasing fittings, etc.) shall be performed at the time of LD inspection.

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## 1.3 Lifting Equipment (LE) Certification

All new or modified LE is required to be certified prior to use in accordance with the requirements of GMI 1710.6. Written, dated, and signed inspection reports shall be prepared after the inspection. Inadequacies shall be documented and, if determined to be a hazard, corrected prior to further use. These reports shall be filed and made readily available to the Owner/User.

## 1.4 Lifting Equipment Recertification

All LE's are required to be recertified in accordance with the requirements of GMI 1710.6. Written, dated, and signed inspection reports shall be prepared after each periodic inspection. Inadequacies shall be documented and, if determined to be a hazard, corrected prior to further use. These reports shall be filed and made readily available to the Owner/User.

### 1.5 LDE Deficiencies

The RECERT Manager shall document all deficiencies that preclude LDE certification or recertification discovered as a result of RECERT tests and inspections. The RECERT Manager shall withhold LD or LE certification or recertification and require that the device be shut down, or the equipment tagged out of service until such deficiencies are corrected. Upon deficiency correction, the LD or LE must be reinspected prior to recertification.

## 1.6 LDE Tagging

All certified and recertified LDE are to be tagged per the RECERT Manager's instructions indicating the certification parameters. These parameters include, but are not limited to, ID number, safe working load; and due date of next inspection.

## 1.7 Consulting Services

The RECERT Manager provides consulting services to the facilities organization and user community on an "as-requested" basis. Such services include Code requirements determination, design reviews, installation recommendations, rehab and modification budgetary cost estimates, etc.

### 2. CERTIFICATION OF LDE OPERATORS

### 2.1 Certification Requirements

All LDE Operator candidates are required to obtain formal training meeting the training requirements specified in NASA-STD-8719.9. Such formal training is available through the GSFC Recertification Program. The training includes classroom instructions, written examination, and hands-on proficiency demonstration. The RECERT Manager evaluates and determines the acceptability of the syllabus of all training courses for which Operator candidates claim credit. In addition, all LDE Operator candidates are required to pass the physical examinations contained in Reference P4.4.

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## 2.2 LDE Operator Certification

Upon successful completion of an approved training course, including written examination and handson training, the certification records are updated and an individual license, or in some instances, a roster of Certified LDE Operators is prepared. The licenses and/or the operator roster are signed by the RECERT Manager and are issued to the Operator, or, in the case of the Operator roster, to appropriate supervisory personnel.

## 2.3 LDE Operator Licenses

There are three categories of LDE Operator Permits and Licenses:

- 2.3.1 Apprentice Permit: Apprentice permits are issued with a required minimum number of hours of noncritical lift operation to be attained under the direction of a licensed LDE Operator. The attainment of these hours shall be attested to by both the licensed operator and the candidate's supervisor. The candidate must complete the required hours of operation within 12 months from Apprentice Permit issuance to prevent expiration of the Apprentice Permit. Upon completion of the required hours and attendance at a Noncritical Lift Operator refresher class, the apprentice will be certified as a Noncritical Lift Operator.
- 2.3.2 Noncritical Lift Operator License: This license authorizes the operator to operate LDE for non-critical lifts only, excluding Hydra-sets.
- 2.3.3 Critical Lift Operator License: This license authorizes the operator to operate LDE for noncritical and critical lifts, including Hydra-sets. The prerequisite for obtaining a Critical Lift Operator License is that the candidate possesses a Noncritical Lift Operator License. Exceptions may be reviewed and granted by the RECERT Manager on a case-by-case basis.
- 2.3.4 The operation of remote radio-controlled LD requires specific training and authorization. Specific radio-controlled LD operator training is only provided to licensed LDE Operators. Rosters delineating trained and authorized radio-controlled LDE Operators are posted at the applicable LD. Annual radio control refresher training is required.

## 2.4 LDE Operator Recertification

All Certified LDE Operators shall be recertified on an annual basis by providing evidence of completion of refresher training, including written examination and hands-on training, and evidence of continuing satisfactory physical examination. A new license or roster update will be issued to the Operator, or, in the case of the Operator roster, to appropriate supervisory personnel.

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#### 2.5 Critical Lift Coordinator Certification

Those personnel who supervise or otherwise direct Critical Lift activities are Certified by the RECERT Manager as Critical Lift Coordinators (CLC) in accordance with Reference P4.5, "Policy for Critical Lift Coordinator (CLC) Certification." Candidates for CLC Certification are required to satisfactorily complete Critical Lift Operator training, including written examination (Noncritical Lift Operator training is not required), but are exempt from hands-on proficiency demonstration. CLC Certification does not permit hands-on operation of LDE. CLC annual refresher training is required for recertification.

2.6 LDE Operator License and CLC Certification Revocation or Suspension

The RECERT Manager may revoke or suspend LDE Operator Licenses or Critical Lift Coordinator Certifications for any of the following reasons:

- 2.6.1 Proof of negligence or abuse of Government equipment as determined by an appointed panel of inquiry or Mishap Investigation Board.
- 2.6.2 Violations of, and/or noncompliance with, any of the safety requirements delineated in the applicable references contained in GMI 1710.6.
- 2.7 Reciprocity with Other NASA Licensing Authorities

At the RECERT Manager's discretion, a temporary LDE Operator License may be issued to personnel on temporary assignment to GSFC provided that the candidate:

- 2.7.1 possess a valid LDE operator license issued by a NASA Center in compliance with requirements contained in NASA-STD-8719.9; and
- 2.7.2 the candidate's license remains valid and in force for the duration of the candidate's assignment at GSFC.

Temporary LDE Operator Licenses will be valid for the duration of the candidate's assignment at GSFC, but shall not exceed 90 days. Thereafter, a GSFC LDE Operator License will be required.

- 4.0 RECERT NONDESTRUCTIVE TESTING (NDT) ACTIVITIES
- 4.1 All LDE NDT is performed by personnel qualified and certified in accordance with their employer's written practice that, as a minimum, meets the requirements contained within the American Society for Nondestructive Testing (ASNT) Recommended Practice No. SNT-TC-1A, "Personnel Qualification and Certification in Nondestructive Testing."
- 4.2 All LDE NDT is carried out in accordance with procedures approved by a NDT Level III certified by ASNT in the method(s) to which the procedures apply.

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4.3 NDT of product-related items not included in the RECERT Program may be provided on an "as-requested" basis.

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# **CHANGE HISTORY LOG**

Revision	Effective Date	Description of Changes
Baseline	05/03/1999	Initial Release
A	07/14/1999	Requirements for the RECERT Manager to document LDE or PV/S certification or recertification deficiencies on NCR's were added to Paragraphs 6.5 and 8.3, respectively. Paragraph 9.4 was added to require documenting NDT failure on an NCR. Paragraphs 5.7 and 7.5, added reference to CLC Certification Policy.
В	07/29/2004	References to PV/S have been deleted from this document due to issue of GPG 8710.3. Reference to NSS/GO 1740.9 was changed to NASA-STD-8719.9 throughout. Reference P4.4 was updated.